PROGRAM DOKÜM EKİ

- GRAFİK KOMUTLARI (ATÖLYE)
- SOLARPIX
- BÜYÜK BESTECİ
- WAVING LOGO ETITOR
- TEYP DIRECTOR
- JOYSTICK KONTROL
- SCREEN WALKER 64
- SINUS INTRO

75

COMMODORE
AYLIK BİLGİSAYAR DERGİSİ

Commodore'un Ücretsiz Ekidir

Eğer Commodore Dergisi Program Döküm Eki'nde yayınlanan programlarla ilgileniyorsanız, yeni uygulamamızı kaçırmayın!

Bundan sonra, Döküm Eki'nde yayınlanacak olan programlar bizler tarafından paketler haline getirilecek ve bu paketleri elde etmek isteyen arkadaşlarımıza posta aracılığı ile iletilecektir. Bu paketleri **kaset ya da disket** olarak elde edebilirsiniz. Bu aboneliğimizden yararlanmak isteyenler, paketlerini derginin çıkış tarihinden önce alabileceklerdir.

Böylece, katılan arkadaşlar hem programları yazmanın yoruculuğundan hem de olası hatalardan da kurtulacaklar.

Bu yeni **PROGRAM ABONELİĞİ** ile ilgileniyorsanız hemen mektup veya telefonla ya da bizzat adresimize gelerek başvuruda bulunun.

Gerekli şartlar için:

Tel: 346 86 48

Adres: Commodore Dergisi
Sakız Sok. Berkel Ap. 6/4
81300 KADIKÖY - İST.

```
OFE9 : 00 00 00 00 00 00 00 00  EA
OFF1 : 00 00 00 00 00 00 00 00  F2
OFF9 : 00 00 00 00 00 00 00 00  FA
1001 : 00 00 00 00 00 00 00 00  02
1009 : 00 00 00 00 00 00 00 00  0A
1011 : 00 00 00 00 00 00 00 00  12
1019 : 00 00 00 00 00 00 00 00  1A
1021 : 00 00 00 00 00 00 00 00  22
1029 : 00 00 00 00 00 00 00 00  2A
1031 : 00 00 00 00 00 00 00 EE  0F
1039 : 20 D0 20 F0 C8 60 50 48  49
1041 : 41 92 20 20 20 20 03 2D  41
1049 : 36 34 20 09 03 09 0E 20  B4
1051 : 20 13 10 12 09 14 05 20  C7
1059 : 02 01 13 09 03 20 10 12  57
1061 : 0F 07 12 01 0D 09 20 20  72
1069 : 20 20 20 20 20 20 28 03  4F
1071 : 29 20 31 39 39 32 20 20  04
1079 : 09 13 0D 01 09 0C 20 13  07
1081 : 01 08 09 0E 20 2D 10 08  46
1089 : 01 0E 14 0F 0D 2D 20 20  73
1091 : 20 20 20 20 02 01 0E 01  30
1099 : 20 19 01 1A 09 0E 20 3A  BF
10A1 : 20 01 19 04 09 0E 05 16  4A
10A9 : 0C 05 12 20 19 09 0C 04  D3
10B1 : 09 1A 20 13 0F 0B 01 0B  95
10B9 : 20 20 20 20 20 0E 0F 3A  19
10C1 : 31 35 2F 31 20 2D 38 31  2E
10C9 : 35 38 30 2D 20 0B 15 03  81
10D1 : 15 0B 19 01 0C 09 2F 09  AA
10D9 : 13 14 01 0E 02 15 0C 20  32
10E1 : 20 20 20 20 20 0C 15 14  FC
10E9 : 06 05 0E 20 09 13 0D 09  69
10F1 : 0D 09 20 20 04 05 07 09  26
10F9 : 13 14 09 12 0D 05 19 09  0A
1101 : 0E 20 19 0F 0B 13 01 20  D5
1109 : 20 20 20 08 01 06 09 1A  DB
1111 : 01 20 14 05 0D 09 1A 0C  62
1119 : 05 0E 09 12 2E 20 28 24  77
1121 : 30 38 30 30 2D 24 06 06  98
1129 : 06 06 20 01 12 01 13 09  E2
1131 : 29 20 A9 00 AA 18 7D 36  A3
1139 : C8 E8 E0 0C D0 F8 CD FF  3B
1141 : C7 D0 1E A9 93 20 D2 FF  B3
1149 : A2 00 BD 00 C8 9D 00 04  DC
1151 : E8 E0 F0 D0 F5 20 80 C5  ED
1159 : A2 00 A9 0D 20 79 C9 60  BD
1161 : EA A2 00 BD 55 C9 20 D2  1E
1169 : FF BD 35 C9 9D 2C 01 E8  DE
1171 : E0 20 D0 EF 4C 2C 01 A9  11
1179 : 08 A0 00 A2 F8 85 FC 84  DE
```

```
1181 : FB 78 84 01 98 91 FB C8   91
1189 : D0 FB E6 FC CA D0 F6 A9   12
1191 : 37 85 01 58 4C 74 A4 93   F8
1199 : 05 0D 20 55 5A 47 55 4E   A9
11A1 : 55 4D 20 48 41 46 49 5A   CE
11A9 : 41 20 54 45 4D 49 5A 4C   D9
11B1 : 45 4E 44 49 0D 0D 0D 0D   DF
11B9 : 0D 0D 0D BD 72 C9 20 D2   E3
11C1 : FF E8 E0 07 D0 F5 60 46   18
```

Grafik Komutları (Atölye)

Bu programların açıklamalarını derginizin Atölye bölümünde bulabilirsiniz.

```
 PROGRAM  : GRF KOMUTLARI    C000 C2D0
-----------------------------------

C000 : 4C 00 C1 4C 2D C1 4C 46   E5
C008 : C1 4C 9B C1 4C E6 C1 00   11
C010 : 00 00 00 00 00 00 00 00   11
C018 : 00 00 00 00 00 00 00 00   19
C020 : 00 00 00 00 00 00 00 00   21
C028 : 00 00 00 00 00 00 00 00   29
C030 : 00 00 00 00 00 00 00 00   31
C038 : 00 00 00 00 00 00 00 00   39
C040 : 00 00 00 00 00 00 00 00   41
C048 : 00 00 00 00 00 00 00 00   49
C050 : 00 00 00 00 00 00 00 00   51
C058 : 00 00 00 00 00 00 00 00   59
C060 : 00 00 00 00 00 00 00 00   61
C068 : 00 00 00 00 00 00 00 00   69
C070 : 00 00 00 00 00 00 00 00   71
C078 : 00 00 00 00 00 00 00 00   79
C080 : 00 00 00 00 00 00 00 00   81
C088 : 00 00 00 00 00 00 00 00   89
C090 : 00 00 00 00 00 00 00 00   91
```

```
C098 : 00 00 00 00 00 00 00 00  99
C0A0 : 00 00 00 00 00 00 00 00  A1
C0A8 : 00 00 00 00 00 00 00 00  A9
C0B0 : 00 00 00 00 00 00 00 00  B1
C0B8 : 00 00 00 00 00 00 00 00  B9
C0C0 : 00 00 00 00 00 00 00 00  C1
C0C8 : 00 00 00 00 00 00 00 00  C9
C0D0 : 00 00 00 00 00 00 00 00  D1
C0D8 : 00 00 00 00 00 00 00 00  D9
C0E0 : 00 00 00 00 00 00 00 00  E1
C0E8 : 00 00 00 00 00 00 00 00  E9
C0F0 : 00 00 00 00 00 00 00 00  F1
C0F8 : 00 00 00 00 00 00 00 00  F9
C100 : AD 00 DD 8D B9 C2 29 FC  27
C108 : 8D 00 DD AD 11 D0 8D BA  06
C110 : C2 09 30 8D 11 D0 AD 16  8F
C118 : D0 8D BC C2 09 10 8D 16  AA
C120 : D0 AD 18 D0 8D BB C2 A9  FC
C128 : 68 8D 18 D0 60 AD B9 C2  57
C130 : 8D 00 DD AD BA C2 8D 11  04
C138 : D0 AD BC C2 8D 16 D0 AD  8E
C140 : BB C2 8D 18 D0 60 A9 E0  3B
C148 : 8D 50 C1 A0 00 98 99 00  AD
C150 : 00 C8 D0 FA EE 50 C1 AD  1B
C158 : 50 C1 C9 00 D0 ED 78 A9  AD
C160 : 34 85 01 A9 D8 8D 6E C1  04
C168 : A0 00 A9 11 99 00 DC C8  33
C170 : D0 FA EE 6E C1 AD 6E C1  0D
C178 : C9 DC D0 EC A9 37 85 01  ED
C180 : 58 A9 D8 8D 8C C1 A0 00  EE
C188 : A9 01 99 00 DC C8 D0 FA  65
C190 : EE 8C C1 AD 8C C1 C9 DC  A2
C198 : D0 EC 60 20 FD AE 20 8A  E5
C1A0 : AD 20 F7 B7 A5 14 C9 10  94
C1A8 : 90 03 4C 48 B2 29 0F 0A  9B
C1B0 : 0A 0A 0A 8D 6B C1 20 FD  35
C1B8 : AE 20 8A AD 20 F7 B7 A5  BA
C1C0 : 14 C9 10 90 03 4C 48 B2  E8
C1C8 : 0D 6B C1 8D 6B C1 20 FD  EE
C1D0 : AE 20 8A AD 20 F7 B7 A5  D2
C1D8 : 14 C9 10 90 03 4C 48 B2  00
C1E0 : 8D 89 C1 4C 5E C1 20 FD  9C
C1E8 : AE 20 8A AD 20 F7 B7 A5  EA
C1F0 : 14 8D BD C2 C9 A0 90 03  7C
C1F8 : 4C 48 B2 20 FD AE 20 8A  04
C200 : AD 20 F7 B7 A5 14 8D BF  63
C208 : C2 C9 C8 90 03 4C 48 B2  0C
C210 : 20 FD AE 20 8A AD 20 F7  65
C218 : B7 A5 14 8D C0 C2 C9 04  AA
C220 : 90 03 4C 48 B2 AD BF C2  6B
C228 : 29 07 48 A9 00 85 FC AD  98
C230 : BF C2 29 F8 48 85 FB 06  66
```

```
C238 : FB 26 FC 06 FB 26 FC 68   FC
C240 : 18 65 FB 85 FB A9 00 65   92
C248 : FC 85 FC 06 FB 26 FC 06   F8
C250 : FB 26 FC 06 FB 26 FC A9   96
C258 : E0 18 65 FC 85 FC 68 18   4F
C260 : 65 FB 85 FB A9 00 65 FC   CE
C268 : 85 FC AD BD C2 29 03 48   A0
C270 : A9 00 8D BE C2 AD BD C2   6B
C278 : 29 FC 8D BD C2 0A 2E BE   ED
C280 : C2 18 65 FB 85 FB AD BE   93
C288 : C2 65 FC 85 FC 68 AA 78   9B
C290 : A9 34 85 01 BD C5 C2 A0   2B
C298 : 00 31 FB 91 FB AC C0 C2   0F
C2A0 : F0 11 B9 C1 C2 CA 30 05   0D
C2A8 : 4A 4A 4C A5 C2 A0 00 11   32
C2B0 : FB 91 FB A9 37 85 01 58   FC
C2B8 : 60 97 1B 15 C8 9C 01 5C   7B
C2C0 : 01 00 40 80 C0 3F CF F3   0F
C2C8 : FC 00 00 00 00 00 00 00   C5
```

PROGRAM ADI : ORNEK CIZIM

```
00010 SYS 49152:SYS 49152+6:SYS 49152+9,1,1,1          <178>
00020 FOR R=0 TO 159                                   <069>
00030 A=(100+100*SIN(R/80* ))*.9                       <107>
00040 SYS 49152+12,R,A,1                               <216>
00050 NEXT                                             <060>
00060 POKE 198,0:WAIT 198,1                            <032>
00070 SYS 49155                                        <001>
```

PROGRAM ADI : DAIRE-RENK

```
00010 SYS 49152:SYS 49152+6:SYS 49152+9,11,12,15       <134>
00020 FOR R=0 TO 360                                   <053>
00030 X=(80+80*SIN(R/180* ))*.9                        <143>
00040 Y=(80+80*COS(R/180* ))*.9                        <149>
00050 SYS 49152+12,X/1.4,Y,R AND 3                     <118>
00060 NEXT                                             <070>
00070 SYS 49152+9,12,15,11                             <181>
00080 SYS 49152+9,15,11,12                             <241>
00090 SYS 49152+9,11,12,15                             <072>
00100 GET A$:IF A$="" THEN 70                          <141>
00110 SYS 49155                                        <041>
```

Commodore

Solarpix

Eğer astronomiye biraz ilgiliyseniz bu program ilginizi çekecektir. Program dört ana bölüme ayrılmıştır. Bunlar Güneş ve Gezegenler, Dünya ve Ay, Kuyrukluyıldızlar ve Genel Bilgiler başlıklarında toplanabilir.

Birden dörde kadar düğmelere basarak girebileceğiniz bu alt bölümlerden ilkinde Güneş ve etrafında dolaşan en fazla beş gezegenin istenen tarihlerdeki konumları görülebilir. Burada size sorulacak 'İç Gezegen?' sorusuna görmek istediğiniz ilk gezegenin numarasını, 'Dış Gezegen?' sorusuna da görmek istediğiniz son gezegenin numarasını yazın. Örneğin Merkür ve Jüpiter arasındaki gezegenleri görmek için bu girişlerde sırasıyla 1 ve 5 sayılarını girmeniz gerekir. Burada 'B' tuşu ile simulasyonu başlatabilir, 'D' tuşuyla durdurabilir, '+' ve '-' tuşları ile de simulasyonun hızını ayarlayabilirsiniz. 'Z' tuşu ana menüye dönmenizi sağlayacaktır.

İkinci seçenek ise Güneş'in etrafında dolaşan Dünya'yı ve Ay'ı göstererek Ay'ın safhalarının nasıl oluştuğunu görmenizi sağlar. Burada da ilk bölümdeki tuşlar simulasyon kontrolü için kullanılabilir.

Üçüncü seçenekte eksantrisitesini yani yörüngesinin genişlik parametresini vereceğiniz bir kuyruklu yıldızı hareketini görebilirsiniz. Burada simulasyon kontrolü için herhangi bir tuş yoktur. 'Z' tuşu ile ana menüye dönebilirsiniz.

Son kısımda ise Güneş, gezegenler ve Ay hakkında genel bilgileri görmek için isimlerin ve liste birimlerinin yanında gösterilen tuşlara basmanız gerekir.

```
00010 POKE 56,132:CLR                                                  <246>
00020 POKE 792,193:POKE 648,132                                        <086>
00030 POKE 56576,(PEEK(56576) AND 252) OR 1                            <034>
00040 POKE 53280,3:POKE 53281,3:DIM S(255),C(255),M
      $(9,17)                                                          <018>
00050 BP=34808:V=53248:LC=49152:EY=1984.82                             <050>
00060 PP=2* :P$(0)="HIZLAN":P$(1)="YAVASL":SA=1.1                      <231>
00070 PRINT "<CLR><8DOWN><CTRL-7>"SPC(10)"LUTFEN BE
      KLEYIN . ."                                                      <032>
00080 SP$=CHR$(32):X$=SP$+"Z CIKIS"                                    <244>
00090 RE$=CHR$(18):RX$=CHR$(146)                                       <022>
00100 T$(1)=RE$+"GUNES VE GEZEGENLER"+RX$                              <163>
00110 T$(2)=RE$+"GUNES, DUNYA VE AY"+RX$                               <109>
00120 T$(3)=RE$+"KUYRUKLU YILDIZLAR"+RX$                               <179>
00130 T$(4)=RE$+"GENEL BILGILER"+RX$                                   <053>
00140 FOR J=49152 TO 49240:READ K:POKE J,K:NEXT                        <061>
00150 FOR J=34816 TO 35199:READ K:POKE J,K:NEXT                        <203>
00160 FOR J=35520 TO 35775:POKE J,0:NEXT                               <170>
00170 FOR L=1 TO 10:READ J,K:POKE 35584+J,K:NEXT                       <247>
00180 FOR J=0 TO 7:READ K:POKE BP+J,K:NEXT                             <058>
00190 FOR J=0 TO 7:READ H(J):NEXT                                      <078>
00200 FOR J=0 TO 10:READ F$(J),U$(J)                                   <227>
00210 L=0:H=10:IF J>4 THEN L=1:H=9                                     <074>
00220 FOR K=L TO H:READ Z$(K,J):Z(K,J)=VAL(Z$(K,J))
      :NEXT :NEXT                                                      <207>
```

```
00230 FOR J=1 TO 9:D(J)=Z(J,5)                                  <089>
00240 P(J)=Z(J,6):NEXT                                          <170>
00250 FOR J=0 TO 10:READ N$(J)                                  <229>
00260 IF J<4 OR J=10 THEN 280                                   <223>
00270 FOR K=1 TO Z(J,10):READ M$(J,K):NEXT                      <032>
00280 NEXT :FOR J=1 TO 9:READ R:R(J)=R/360:NEXT                 <004>
00290 FOR N=0 TO 255:M=N*2* /256                                <067>
00300 S(N)=SIN(M):C(N)=COS(M):NEXT                              <153>
00310 FOR J=32 TO 36:K=74-J                                     <029>
00320 POKE 251,J:POKE 252,2:POKE 253,K                          <152>
00330 POKE 254,2:SYS 49175:NEXT                                 <045>
00340 FOR J=0 TO 7:POKE V+39+J,H(J):NEXT                        <010>
00350 POKE V+23,0:POKE V+29,0:POKE V+16,128                     <230>
00360 GOSUB 550:POKE V+39,7:POKE V+40,3                         <096>
00370 POKE V+32,3:POKE V+33,3:POKE 646,6                        <196>
00380 PRINT "<CLR>":SYS LC,4,14                                 <103>
00390 PRINT "SOLARPIX":PRINT :PRINT                             <046>
00400 FOR J=1 TO 4:PRINT TAB(8)J;T$(J):PRINT                    <201>
00410 NEXT :PRINT TAB(9)"C CIKIS"                               <039>
00420 GOSUB 470:ON KGOTO 630,1010,1280,1460                     <015>
00430 IF K$<>"C" THEN 420                                       <092>
00440 POKE 56576,PEEK(56576) OR 3                               <243>
00450 POKE 648,4:POKE 792,71:GOSUB 550                          <050>
00460 PRINT "<CLR>":POKE 56,160:CLR:END                         <117>
00470 POKE 198,0                                                <124>
00480 GET K$:IF K$="" THEN 480                                  <026>
00490 K=VAL(K$):RETURN                                          <202>
00500 SYS LC,17,31:PRINT "B BASLA"                              <107>
00510 PRINT TAB(31)"D DUR"                                      <012>
00520 PRINT TAB(31)"+ HIZLI"                                    <106>
00530 PRINT TAB(31)"- YAVAS"                                    <233>
00540 PRINT TAB(30)X$:RETURN                                    <036>
00550 POKE V+21,0:FOR J=0 TO 15                                 <175>
00560 POKE V+J,0:NEXT :RETURN                                   <245>
00570 SYS LC,23,30:PRINT X$                                     <200>
00580 SYS LC,2,0:RETURN                                         <093>
00590 GET K$:IF K$="D" THEN FL=1                                <086>
00600 IF K$="B" THEN FL=0                                       <066>
00610 IF KH$="-" THEN M=M/2                                     <132>
00620 RETURN                                                    <170>
00630 POKE V+32,11:POKE V+33,0:POKE 646,7                       <133>
00640 GOSUB 550:PRINT "<CLR>"T$(1):GOSUB 570                    <149>
00650 PRINT "<CTRL-7>LUTFEN GEZEGEN SECIN (MAX 5)"              <223>
00660 PRINT :FOR J=1 TO 9:PRINT J;N$(J):NEXT                    <071>
00670 PRINT :PRINT "IC GEZEGEN?";                               <243>
00680 GOSUB 470:IF K$="Z" THEN 360                              <190>
00690 L=K:IF L<1 THEN 680                                       <108>
00700 PRINT N$(L):PRINT "DIS GEZEGEN?";                         <041>
00710 GOSUB 470:IF K$="Z" THEN 360                              <220>
00720 H=K:IF H<L OR H>9 OR H-L>4 THEN 710                       <218>
00730 PRINT N$(H):PRINT :X=1                                    <011>
00740 FOR J=1 TO H-L+1:X=X+2^J:NEXT                             <231>
```

```
00750 FOR J=L TO H:F(J)=D(J)*90/D(H)                          <158>
00760 E(J)=F(J)*SA:NEXT :M=P(L)/50:ML=M*9                     <009>
00770 INPUT "BASLANGIC YILI (1-2000)";K$                      <152>
00780 SY=VAL(K$):IF SY<1 OR SY>2000 THEN 630                  <078>
00790 PRINT "<CLR><CTRL-8>"T$(1):K=1                          <034>
00800 FOR J=L TO H:POKE 646,H(K)                              <114>
00810 PRINT TAB(31)N$(J):K=K+1:NEXT                           <200>
00820 POKE 646,14:GOSUB 500:SYS LC,7,31                       <017>
00830 PRINT "DUNYA":PRINT TAB(31)"YIL"                        <030>
00840 E=.25:T=SY-EY:FL=1                                      <096>
00850 POKE V,130:POKE V+1,148:POKE V+21,X                     <175>
00860 FOR J=L TO H:A=T/P(J)+R(J)                              <199>
00870 A=INT((A-INT(A))*256):IF J=9 THEN 890                   <166>
00880 X(J)=C(A):Y(J)=-S(A):GOTO 910                           <138>
00890 Z=1+E*C(A):X(J)=E+(E+C(A))/Z                            <116>
00900 Y(J)=(E*E-1)*S(A)/Z                                     <053>
00910 X(J)=INT(131+X(J)*E(J))                                 <051>
00920 Y(J)=INT(149+Y(J)*F(J)):NEXT                            <072>
00930 K=1:FOR J=L TO H:POKE V+2*K,X(J)                        <175>
00940 POKE V+2*K+1,Y(J):K=K+1:NEXT                            <102>
00950 T$=STR$(INT((T+EY)*10)/10)                              <023>
00960 SYS LC,9,30:PRINT T$SP$SP$                              <247>
00970 GOSUB 590:IF K$="Z" THEN 630                            <137>
00980 IF FL THEN 970                                          <011>
00990 IF K$="+" AND M<ML THEN M=M*2                           <239>
01000 T=T+M:GOTO 860                                          <048>
01010 POKE V+32,14:POKE V+33,0:POKE 646,14                    <107>
01020 PRINT "<CLR>"T$(2):PRINT TAB(32)"AY"                    <110>
01030 PRINT TAB(32)"FAZ":GOSUB 500                            <144>
01040 SYS LC,23,1:PRINT "(DUNYA-AY ARASI 30 KAT BUY
      UTULMUSTUR)"                                            <018>
01050 SYS LC,7,31:PRINT "DUNYA"                               <108>
01060 PRINT TAB(31)"GUN"                                      <158>
01070 E=84:D=E*SA:F=D*30/390:G=F/SA                           <078>
01080 M=0.3/365.25:T=0:H=13.3685                              <113>
01090 POKE V+39,14:POKE V+40,12                               <064>
01100 POKE V+12,141:POKE V+13,147                             <236>
01110 POKE V+14,24:POKE V+15,80                               <155>
01120 POKE V+21,195:FL=1                                      <067>
01130 A=T-INT(T):B=T*H:B=B-INT(B)                             <073>
01140 C=INT(12*(B-A)+.5-7)                                    <240>
01150 IF C<0 THEN C=C+12:GOTO 1150                            <195>
01160 A=A*PP:B=B*PP                                           <145>
01170 X=INT(142.5+COS(A)*D)                                   <185>
01180 Y=INT(148.5-SIN(A)*E)                                   <231>
01190 W=INT(X+1+COS(B)*F)                                     <236>
01200 Z=INT(Y+1-SIN(B)*G)                                     <200>
01210 POKE V,X:POKE V+1,Y:POKE V+2,W                          <044>
01220 POKE V+3,Z:POKE BP+7,32+C                               <224>
01230 SYS LC,9,30:PRINT INT(T*365.25)                         <216>
01240 GOSUB 590:IF K$="Z" THEN 360                            <026>
01250 IF FL THEN 1240                                         <251>
```

```
01260 IF K$="+" AND M<.006 THEN M=M*2                          <024>
01270 T=T+M:GOTO 1130                                          <057>
01280 POKE V+32,5:POKE V+33,0:POKE 646,5                       <216>
01290 GOSUB 550:PRINT "<CLR>"RE$T$(3):GOSUB 570                <110>
01300 INPUT "EKSANTRISITE (0-0.96)";K$                         <225>
01310 E=VAL(K$):IF K$="Z" THEN 360                             <122>
01320 IF E<0 OR E>.96 OR LEN(K$)=0 THEN 1280                   <166>
01330 FL=1:IF RIGHT$(K$,1)="R" THEN FL=-1                      <119>
01340 PRINT "<CLR>"RE$T$(3):GOSUB 570                          <028>
01350 PRINT "EKSANTRISITE="E:SYS LC,2,27                       <096>
01360 IF E THEN PRINT "HIZLANIYOR"                             <227>
01370 M=0.01:T=0:F=65*SA:G=65*FL                               <057>
01380 POKE V,106:POKE V+1,148:POKE V+21,3                      <227>
01390 A=(T-INT(T))*PP:Z=1+E*COS(A)                             <187>
01400 X=E+(E+COS(A))/Z:Y=(E*E-1)*SIN(A)/Z                      <073>
01410 X=INT(107+X*F):Y=INT(149+Y*G)                            <063>
01420 J=INT(A/ ):POKE V+2,X:POKE V+3,Y                         <206>
01430 IF E>0.1 THEN SYS LC,2,27:PRINT P$(J)                    <151>
01440 GET K$:IF K$="Z" THEN 1280                               <144>
01450 T=T+M:GOTO 1390                                          <039>
01460 POKE V+32,3:POKE V+33,6:POKE 646,3                       <143>
01470 PRINT "<CLR>"RE$T$(4)" MENU":SYS LC,4,0                  <091>
01480 GOSUB 570:SYS LC,4,0                                     <242>
01490 PRINT " S GUNES":PRINT " L AY"                           <093>
01500 FOR J=1 TO 9:PRINT J;N$(J):NEXT                          <001>
01510 SYS LC,4,0:FOR J=0 TO 10                                 <198>
01520 PRINT TAB(20)CHR$(J+65)" "F$(J):NEXT                     <244>
01530 GOSUB 470:IF K$="Z" THEN 360                             <022>
01540 IF K$="S" THEN K=0:GOTO 1590                             <063>
01550 IF K$="L" THEN K=10:GOTO 1590                            <134>
01560 IF K>0 AND K<10 THEN 1590                                <142>
01570 K=ASC(K$)-65:IF K<0 OR K>10 THEN 1530                    <069>
01580 GOTO 1720                                                <172>
01590 POKE V+32,3:POKE V+33,11:POKE 646,3                      <163>
01600 PRINT "<CLR>"RE$N$(K)RX$;                                <058>
01610 H=4:IF K=0 OR K=10 THEN PRINT :GOTO 1630                 <012>
01620 H=10:PRINT " GUNESTEN ITIBAREN "K". GEZEGEN"             <006>
01630 PRINT :FOR J=0 TO H                                      <250>
01640 PRINT F$(J)TAB(18)Z(K,J)TAB(28)U$(J)                     <099>
01650 NEXT :IF K<10 THEN 1680                                  <123>
01660 PRINT "DUNYADAN UZAKLIK<3SPACE>388800<3SPACE>
      KM"                                                      <097>
01670 PRINT F$(9)TAB(19)"6<8SPACE>AY"                          <139>
01680 PRINT :IF K<4 OR K=10 THEN 1770                          <008>
01690 FOR J=1 TO Z(K,10):C=INT((J-1)/7)                        <169>
01700 L=13+J-C*7:SYS LC,L,C*13                                 <206>
01710 PRINT M$(K,J):NEXT :GOTO 1770                            <163>
01720 POKE V+32,3:POKE V+33,11:POKE 646,3                      <037>
01730 PRINT "<CLR>"RE$F$(K)RX$TAB(19)U$(K)                     <000>
01740 L=0:H=10:IF K>4 THEN L=1:H=9                             <096>
01750 SYS LC,5,0:FOR J=L TO H                                  <215>
01760 PRINT N$(J)TAB(18)Z(J,K):NEXT                            <074>
01770 GOSUB 570:GOSUB 470:GOTO 1460                            <235>
```

```
01780 DATA 32,13,192,132,251,32,13                    <082>
01790 DATA 192,166,251,76,240,255,32                  <174>
01800 DATA 253,174,32,158,173,32,170                  <028>
01810 DATA 177,96,162,6,6,251,38                      <132>
01820 DATA 252,6,253,38,254,202,208                   <219>
01830 DATA 245,169,21,133,2,160,2                     <166>
01840 DATA 177,251,162,8,106,38,255                   <173>
01850 DATA 202,208,250,192,1,240,4                    <200>
01860 DATA 152,73,2,168,165,255,145                   <068>
01870 DATA 253,192,1,240,4,152,73                     <153>
01880 DATA 2,168,136,16,223,162,3                     <157>
01890 DATA 230,251,230,253,202,208,249                <053>
01900 DATA 198 2 208 208 96                           <134>
01910 DATA 0,15,0,0,0,192,0,0,48                      <211>
01920 DATA 0,0,56,0,0,28,0,0,28                       <060>
01930 DATA 0,0,14,0,0,14,0,0,7                        <146>
01940 DATA 0,0,7,0,0,7,0,0,7                          <028>
01950 DATA 0,0,7,0,0,14,0,0,14                        <179>
01960 DATA 0,0,28,0,0,28,0,0,56                       <196>
01970 DATA 0,0,48,0,0,192,0,15,0,0                    <112>
01980 DATA 0,15,0,0,7,192,0,3,240                     <102>
01990 DATA 0,1,248,0,1,252,0,1,252                    <191>
02000 DATA 0,0,254,0,0,254,0,0,255                    <108>
02010 DATA 0,0,255,0,0,255,0,0,255                    <122>
02020 DATA 0,0,255,0,0,254,0,0,254                    <128>
02030 DATA 0,1,252,0,1,252,0,1,248                    <231>
02040 DATA 0,3,240,0,7,192,0,15,0,0                   <082>
02050 DATA 0,15,0,0,15,192,0,15,240                   <100>
02060 DATA 0,15,248,0,15,252,0,15,252                 <192>
02070 DATA 0,15,254,0,15,254,0,15,255                 <252>
02080 DATA 0,15,255,0,15,255,0,15,255                 <116>
02090 DATA 0,15,255,0,15,254,0,15,254                 <004>
02100 DATA 0,15,252,0,15,252,0,15,248                 <042>
02110 DATA 0,15,240,0,15,192,0,15,0,0                 <112>
02120 DATA 0 15,0,0,31,192,0,63,240                   <105>
02130 DATA 0,127,248,0,127,252,0,127,252              <166>
02140 DATA 0,255,254,0,255,254,0,255,255              <179>
02150 DATA 0,255,255,0,255,255,0,255,255              <229>
02160 DATA 0,255,255,0,255,254,0,255,254              <079>
02170 DATA 0,127,252,0,127,252,0,127,248              <101>
02180 DATA 0,63,240,0,31,192,0,15,0,0                 <083>
02190 DATA 0,31,0,0,255,192,3,255,240                 <047>
02200 DATA 3,255,248,7,255,252,7,255,252              <197>
02210 DATA 15,255,254,15,255,254,31,255,255           <194>
02220 DATA 31,255,255,31,255,255,31,255,255           <170>
02230 DATA 31,255,255,15,255,254,15,255,254           <190>
02240 DATA 7,255,252,7,255,252,3,255,248              <162>
02250 DATA 3,255,240,0,255,192,0,31,0,0               <092>
02260 DATA 0,255,0,3,255,192,15,255,240               <250>
02270 DATA 31,255,248,63,255,252,63,255,252           <071>
02280 DATA 127,255,254,127,255,254,255,255,255        <234>
02290 DATA 255,255,255,255,255,255,255,255,255        <142>
02300 DATA 255,255,255,127,255,254,127,255,254        <254>
```

```
02310 DATA 63,255,252,63,255,252,31,255,248                    <089>
02320 DATA 15,255,240,3,255,192,0,255,0,0                      <231>
02330 DATA 0,112,3,248,6,248,9,248,12,112                      <020>
02340 DATA 64,192,67,192                                       <015>
02350 DATA 128,224,131,224,134,224                             <191>
02360 DATA 46,45,45,45,45,45,44,37                             <113>
02370 DATA 7,3,4,14,8,6,7,12                                   <182>
02380 DATA CAP,KILOMETRE                                       <240>
02390 DATA 1382400,4960,12320,12680                            <128>
02400 DATA 6720,140800,113600,51200                            <129>
02410 DATA 49600,2400,3456                                     <152>
02420 DATA KUTLE,(DUNYA=1)                                     <057>
02430 DATA 332830,0.055,0.815,1                                <053>
02440 DATA 0.107,318,95.2,14.5                                 <179>
02450 DATA 17.2,0.01,0.012                                     <234>
02460 DATA YOGUNLUK,(SU=1)                                     <196>
02470 DATA 1.4,5.4,5.2,5.5,3.9,1.3                             <057>
02480 DATA 0.7,1.2,1.7,1.4,3.4                                 <057>
02490 DATA GUN UZUNLUGU,DUNYA GUNU                             <134>
02500 DATA 25,58.9,243,1,1.03,0.404                            <233>
02510 DATA 0.444,0.67,0.77,6.39,27.3                           <177>
02520 DATA SICAKLIK,CELSIUS                                    <199>
02530 DATA 10000,350,500,20,-30,-150,                          <220>
02540 DATA -190,-210,-230,-245                                 <233>
02550 DATA GUNESTEN UZAKLIK,MILYON KM                          <026>
02560 DATA 57.6,107.5,148.6,227.2,772                          <030>
02570 DATA 1420,2850,4472,5872                                 <031>
02580 DATA YIL UZUNLUGU,DUNYA YILI                             <139>
02590 DATA 0.241,0.615,1,1.88,11.86                            <072>
02600 DATA 29.46,84,164,248                                    <158>
02610 DATA YORUNGE HIZI,KM/S                                   <138>
02620 DATA 171000,125000,106000,86000                          <016>
02630 DATA 46000,35000,24000,19000,16000                       <035>
02640 DATA EKSEN EGIMI,DERECE                                  <115>
02650 DATA 0,179,23.5,25,3.1                                   <236>
02660 DATA 26.7,97.9,28.8,0                                    <199>
02670 DATA 90KM/S'LE VARIS,YIL                                 <142>
02680 DATA 75,139,193,295,1002                                 <041>
02690 DATA 1840,3698,5797,7612                                 <226>
02700 DATA AYLAR,TANE                                          <238>
02710 DATA 0,0,1,2,16,17,5,3,1                                 <003>
02720 DATA GUNES,MERKUR,VENUS,DUNYA,MARS,PHOBOS,DEI
      MOS                                                      <121>
02730 DATA JUPITER,METIS,ADRASTREA,AMALTHEA,THEBE,I
      O,EUROPA,GANYMEDE,CALLISTO                               <091>
02740 DATA LEDA,HIMALIA,LYSITHEA,ELARA,ANANKE,CARME
      ,PASIPHAE,SINOPE                                         <014>
02750 DATA SATURN,ATLAS,X,X,JANUS,EPIMETHEUS,MIMAS,
      ENCELADUS,TETHYS,TELESTO                                 <215>
02760 DATA CALYPSO,DIONE,X,RHEA,TITAN,HYPERION,IAPE
      TUS,PHOEBE                                               <112>
02770 DATA URANUS,MIRANDA,ARIEL,UMBRIEL,TITANIA,OBE
      RON                                                      <195>
02780 DATA NEPTUN,TRITON,NEREID,X,PLUTO,CHARON,AY              <135>
02790 DATA 198,255,351,285,249,180,204,227,173                 <252>
```

Büyük Besteci

Büyük Besteci özellikle çocukların kolayca müzik yapabilmesi için yazılmıştır. Program sizin yardımınızla veya kendi başına müzik yapabilir. Programın dört çalışma şekli vardır:

1. F1'e basarak notaları bilgisayarın rastgele seçmesi ve çalışması sağlanır.

2. F3'e basılarak programda bulunan küçük bir müzikal yapay zeka rutini sayesinde C-64'ün müzik yapması sağlanır.

3. F5'e basıldığında kullanıcı müzik yapabilir. Bunun için rakamlara basılmalıdır.

4. F7'ye basılarak daha önceden data satırlarına yerleştirilmiş 16 kısa melodi dinlenebilir.

Bu tuşlardan herhangi birine herhangi bir anda basılarak çalışma şekli değiştirilebilir.

```
00009 REM  COMPUTE!'S GAZETTE'DEN "UGUR YILDIRIM' T
      ARAFINDAN UYARLANMISTIR.....                    <075>
00010 NT=0:FOR T=0 TO 9:READ CO(T),CH(T):NEXT         <137>
00020 DATA 1,18,8,6,4,7,2,1,14,3,5,4,12,6,9,7,5,1,6
      ,3                                              <171>
00030 POKE 53280,6:POKE 53281,15                      <087>
00040 PRINT "<CLR><DOWN><CTRL-1>","<CTRL-7>BUYUK BE
      STECI **64**":PRINT "<DOWN><CTRL-3>","<2SPACE
      ><RVSON> KISA MELODILER"                        <074>
00050 PRINT "<CTRL-3><DOWN><2SPACE><RVSON>F1<RVSOFF
      > TUSU: C-64 RASTGELE CALIYOR.":REM  FLAG=0 A
      ND RA=1                                         <075>
00060 PRINT "<C=4><DOWN><2SPACE><RVSON>F3<RVSOFF> T
      USU: C-64 BESTELIYOR.":REM  IF TUNE=0           <171>
00070 PRINT "<CTRL-7><DOWN><2SPACE><RVSON>F5<RVSOFF
      > TUSU: KENDINIZ CALIN!!!":FLAG=0:REM  AND TU
      NE=0                                            <126>
00080 PRINT "<C=1><DOWN><2SPACE><RVSON>F7<RVSOFF> T
      USU: HAFIZADAKI MELODILER":TUNE=1:PRINT :REM
       FLAG=0                                         <240>
00090 PRINT "<C=7><DOWN> ISTE SIMDI HAFIZAMDAKILERI
       CALIYORUM."                                    <030>
00100 DATA 144,31,5,28,144,31,156,144,31,30,5,28,15
      6,31,30,5                                       <049>
00110 DIM H1(32),L1(32),H2(32),L2(32),IN(16),TUNES(
      512)                                            <112>
00120 PRINT "<DOWN><C=4>":GOTO 330                    <211>
00140 DATA 0,0,0,0,5,152,11,48,14,24,22,96,4,48,8,9
      7,14,25,22,96                                   <000>
00150 DATA 5,152,11,48,14,24,22,96,4,48,8,97,4,112,
      8,225                                           <136>
00160 DATA 4,180,9,104,15,210,22,96,3,35,6,71,15,21
      0,22,96                                         <003>
00170 DATA 4,180,9,104,15,210,22,96,3,35,6,71,3,244
      ,7,233                                          <000>
```

```
00180 DATA 4,48,8,97,14,239,21,31,3,35,6,71,14,239,
      21,31                                          <228>
00190 DATA 4,48,8,97,14,239,21,31,3,35,6,71,3,187,7
      ,119                                           <194>
00200 DATA 4,48,16,195,4,180,14,239,4,251,14,24,5,7
      1,12,143                                       <214>
00210 DATA 5,152,11,48,4,48,14,24,5,152,11,48,0,0,0
      ,0                                             <097>
00220 YAPAY ZEKA RUTINI                              <014>
00230 AI=INT(RND(0)*23)+1:NE=131                     <115>
00240 IF AI>16 THEN ON (AI-16)GOTO 260,270,280,290,
      300,310,320                                    <011>
00250 R=TU((AI*16)+P):RETURN                         <036>
00260 R=0:RETURN                                     <209>
00270 R=2:RETURN                                     <251>
00280 R=3:RETURN                                     <021>
00290 R=5:RETURN                                     <063>
00300 R=7:RETURN                                     <105>
00310 R=8:RETURN                                     <131>
00320 R=0:RETURN                                     <013>
00330 PRINT "<HOME><20DOWN><2RIGHT><C=7><RVSON> ONA
      LTI MELODIYI HAFIZAMA ALIYORUM. "              <088>
00340 FOR K=1 TO 16:READ IN(K):NEXT                  <104>
00350 FOR I=0 TO 32:READ H1(I),L1(I),H2(I),L2(I):NE
      XT I                                           <094>
00360 FOR T=0 TO 9:READ H3(T),L3(T):NEXT T           <014>
00370 FOR TN=1 TO 512:READ TUNES(TN):NEXT :TUNE=1    <070>
00380 FOR S=1 TO 20:POKE 1823+S,32:POKE 1863-S,32:F
      OR D=1 TO 33:NEXT D:NEXT S                     <016>
00390 L1=54272:L2=54279:L3=54286                     <236>
00400 H1=L1+1:H2=L2+1:H3=L3+1                        <226>
00410 V1=L1+4:V2=L2+4:V3=L3+4                        <157>
00420 POKE 54296,12:CH=1874:CO=56146                 <010>
00430 POKE V1+1,10:POKE V1+2,70                      <103>
00440 POKE V2+1,10:POKE V2+2,70                      <161>
00450 POKE V3+1,10:POKE V3+2,75:POKE V3-1,8          <013>
00460 P=1                                            <183>
00470 Q=Q+1:IF Q=17 THEN FOR T=1 TO 1111:NEXT :POKE
       53281,7:GOTO 930                              <182>
00480 PRINT "<HOME><23DOWN><CTRL-1><10SPACE>0 1 2 3
       4 5 6 7 8 9 "                                 <224>
00490 PRINT "<HOME><19DOWN>"                         <160>
00500 PRINT "<C=7>"SPC(7)"<RVSON> CALDIGIM MELODI N
      O:"CHR$(IN(Q))"<RVSON> #";Q;"<LEFT> "          <238>
00510 POKE V1,32:POKE V2,32:POKE V3,64:NT=NT+1       <035>
00520 GET A$:NE=150:IF A$="" THEN A$="5"             <194>
00530 IF A$="<F7>" THEN FLAG=0:TUNE=1:RA=0:PRINT "<
      HOME><3DOWN><C=1>","<3SPACE><RVSON> KISA MELO
      DILER<2SPACE>":GOSUB 920                       <144>
00540 IF A$="<F5>" THEN FLAG=0:TUNE=0:RA=0:PRINT "<
      HOME><3DOWN><CTRL-7>","<2SPACE><RVSON> SIZ CA
      LIYORSUNUZ ":GOSUB 910                         <247>
```

```
00550 IF A$="<F3>" THEN FLAG=1:TUNE=0:RA=0:PRINT "<
      HOME><3DOWN><C=4>","<2SPACE><RVSON> C-64 CALI
      YOR<5SPACE>":GOSUB 900                          <066>
00560 IF A$="<F1>" THEN FLAG=0:TUNE=0:RA=1:PRINT "<
      HOME><3DOWN><CTRL-3>","<2SPACE><RVSON> C-64 R
      ASTGELE<4SPACE>":GOSUB 890                      <033>
00570 R=VAL(A$):IF FLAG THEN GOSUB 230                <170>
00580 IF RA THEN R=INT(RND(1)*10)                     <174>
00590 IF TUNE THEN R=TUNES(NT)                        <036>
00600 IF R>9 THEN R=0                                 <130>
00610 POKE H1,H1(P):POKE L1,L1(P):POKE H2,H2(P):POK
      E L2,L2(P)                                      <135>
00620 IF P=31 THEN R=1                                <075>
00630 IF P=32 THEN R=0                                <145>
00640 IF H3(R)=0GOTO 660                              <166>
00650 POKE H3,H3(R):POKE L3,L3(R):POKE V3,65          <143>
00660 POKE V1,33:POKE V2,33:POKE CH+40+(R*2),CH(R):
      POKE CO+40+(R*2),CO(R)                          <164>
00670 FOR T=1 TO NE:NEXT                              <174>
00680 POKE CH+40+(R*2),32:P=P+1:IF P=33 THEN P=1:GO
      TO 470                                          <252>
00690 A$="":GOTO 510                                  <040>
00700 DATA 0,0,22,96,25,30,28,49,33,135,37,162,44,1
      93,50,60,56,99,67,15                            <147>
00710 REM  SONG DATA                                  <064>
00720 DATA 4,4,0,5,6,7,8,0,7,7,0,8,7,6,5,0,4,4,0,2,
      4,7,9,0,9,8,7,4,6,0,1,0                         <126>
00730 DATA 4,5,6,5,4,5,6,5,7,8,7,8,7,0,0,8,7,8,9,8,
      7,8,9,8,6,7,6,5,6,0,1,0                         <145>
00740 DATA 4,4,5,4,8,8,7,6,7,8,7,6,5,0,6,5,4,9,7,9,
      4,9,7,0,9,9,4,4,6,0,1,0                         <058>
00750 DATA 1,2,3,4,1,2,3,0,7,6,5,0,7,6,5,0,4,4,9,9,
      4,4,7,0,9,8,7,8,6,4,1,0                         <131>
00760 DATA 4,4,3,5,4,0,3,0,7,7,6,5,7,0,5,0,4,4,2,3,
      4,4,4,0,9,9,8,7,8,6,1,0                         <137>
00770 DATA 4,4,8,6,4,4,8,6,7,7,6,5,7,8,7,0,4,4,9,0,
      9,9,4,0,7,4,5,4,3,1,1,0                         <112>
00780 DATA 1,2,3,4,5,6,7,8,7,0,5,0,7,6,5,0,4,9,7,9,
      4,0,7,0,9,7,4,5,6,0,1,0                         <141>
00790 DATA 3,3,3,0,3,3,3,0,2,2,2,3,2,0,5,0,4,4,4,0,
      9,9,9,0,4,9,4,9,6,4,1,0                         <169>
00800 DATA 3,4,5,3,4,5,4,3,2,3,2,7,2,0,5,0,4,9,4,7,
      9,7,4,0,9,8,7,5,6,0,1,0                         <069>
00810 DATA 4,4,5,4,8,8,7,6,7,7,5,5,7,0,6,5,4,2,4,5,
      4,2,4,0,9,4,5,4,3,1,1,0                         <137>
00820 DATA 3,0,3,2,1,0,1,0,2,3,2,5,2,3,2,0,4,4,4,9,
      4,4,4,0,9,8,7,4,6,6,1,0                         <131>
00830 DATA 8,9,9,0,8,7,6,0,7,8,9,8,7,0,5,0,4,4,5,4,
      9,0,4,0,7,6,5,4,6,4,1,0                         <151>
00840 DATA 5,5,4,0,5,5,4,0,3,3,2,0,3,3,2,0,4,4,7,0,
      4,4,9,0,4,4,5,4,3,1,1,0                         <155>
00850 DATA 1,3,4,5,6,5,4,3,2,3,2,0,7,8,7,0,4,5,4,9,
      4,5,4,0,8,7,6,5,6,0,1,0                         <226>
```

```
00860 DATA 9,8,7,6,5,4,3,4,2,3,4,5,7,6,5,0,9,4,4,5,
      4,9,4,0,9,8,7,4,6,6,1,0                          <090>
00870 DATA 4,5,4,6,4,5,4,0,2,3,2,5,2,3,2,0,4,5,4,7,
      4,4,4,0,9,8,7,4,5,6,1,0                          <052>
00880 REM  MESAJ TABLOSU                               <069>
00890 PRINT "<HOME><14DOWN><CTRL-3> NOTA SIRALAMASI
      NI C-64 RASTGELE YAPIYOR":RETURN                 <096>
00900 PRINT "<HOME><14DOWN><C=4> C-64'UN YAPAY ZEKA
      SI MUZIK OLUSTURUYOR ":RETURN                    <189>
00910 PRINT "<HOME><14DOWN><CTRL-7> NOTA ICIN SAYIL
      ARA BOSLUK ICIN HARFLERE"                        <197>
00915 RETURN                                           <211>
00920 PRINT "<HOME><14DOWN><C=7> ISTE SIMDI HAFIZAM
      DAKILERI CALIYORUM . ":RETURN                    <254>
00930 PRINT "<CLR><CTRL-7><4RIGHT>BUYUK BESTECININ
      SIZE CALACAGI"                                   <065>
00940 PRINT "<11RIGHT>MELODILER BU KADAR."             <181>
00950 END                                              <190>
```

Waving Logo Editör

Bu program kendi itrolarınızda kullanabileceğiniz ilginç ekranlar yaratmakta kullanılabilir. Nasıl kaydedeceğinizi birazdan anlatacağım rutinin kullanımı ise şöyle. Yeri değişebilen bir program olduğu için rutin başlangıç adresinden $0360 byte sonrasına IRQ rutini yerleşiyor. Yeni Programın ana kısmı $3000'de ise IRQ rutini $3360 adresinde bulunacaktır. Ekran sallanma efektleri ise istenilen adreste yer alabilir. Ana menüdeki tuşlar ise şöyle:

1. Test Routine: Hazırladığınız ekranı görmek.

2. Edit Screen: Ekranı düzenlemek. Burada kullandığınız tüm karakterler gösterimde nokta olarak belirir.

3. Change Mask: Sallanma efektini değiştirmek. Bunlardan altı tane buunuyor.

4. Save Mast: Sallanma efektlerini kaydetmek.

5. Save Routine: Programı kaydetmek.

6. Info: İngilizce bilgi sayfası.

```
0801 : 0B 08 BC 1B 9E 32 30 36  4B
0809 : 31 00 00 00 78 A9 00 8D  2A
0811 : 20 D0 8D 21 D0 A9 0F 8D  D2
0819 : 86 02 A9 93 20 D2 FF A2  5B
0821 : 27 BD 67 08 9D 00 04 CA  81
0829 : 10 F7 A2 00 BD 3B 08 9D  EF
0831 : B7 03 E8 C9 E0 D0 F5 4C  E2
0839 : B7 03 78 A9 30 85 01 A2  3E
0841 : 00 BD 8F 08 9D 0B 08 E8  29
0849 : D0 F7 EE C0 03 EE C3 03  A5
0851 : AD C0 03 C9 00 D0 EA A9  DE
0859 : 37 85 01 58 20 A3 FD 20  F6
0861 : 15 FD 4C 0B 08 E0 20 20  32
0869 : 20 20 20 2A 20 03 05 0E  31
0871 : 14 15 12 19 20 2D 20 01  A6
```

Commodore

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0879 : 20 0E 05 17 20 07 05 0E  2F
0881 : 05 12 01 14 09 0F 0E 20  D4
0889 : 2A 20 20 20 20 20 A2 00  5D
0891 : 78 EE 30 D0 86 01 BD 31  70
0899 : 08 9D FA 00 E0 AB B0 06  69
08A1 : BD 22 09 9D 33 03 CA D0  7D
08A9 : ED A9 00 85 2D A9 A0 85  C9
08B1 : 2E 4C AD 03 0D E8 00 A0  2A
08B9 : 33 14 20 77 03 90 4C 20  14
08C1 : 77 03 B0 04 A9 01 D0 2E  A9
08C9 : 20 34 03 C9 03 F0 05 18  F9
08D1 : 69 02 D0 22 20 34 03 C9  F7
08D9 : 03 F0 05 18 69 05 D0 16  C7
08E1 : E8 20 34 03 C9 07 F0 05  E9
08E9 : 18 69 08 D0 09 A2 0C 20  E8
08F1 : 34 03 A4 A7 84 A9 85 A8  C2
08F9 : A5 FE 85 F7 A5 FF 85 F8  E0
0901 : 20 7C 03 A5 F7 85 FE A5  C8
0909 : F8 85 FF 20 77 03 B0 39  8C
0911 : 20 77 03 B0 07 A2 06 20  A2
0919 : 34 03 10 0C A2 09 20 34  B0
0921 : 03 18 69 40 90 02 E6 A7  97
0929 : A0 02 84 A8 85 A6 18 A5  3A
0931 : FC 65 A6 85 F7 A5 FD 65  A9
0939 : A7 85 F8 A5 F7 D0 02 C6  31
0941 : F8 C6 F7 20 87 03 4C 00  60
0949 : 01 20 77 03 B0 36 A9 03  02
0951 : 85 A8 20 77 03 B0 1A A2  85
0959 : 08 A9 20 A0 00 85 02 84  8F
0961 : 03 20 34 03 18 65 02 85  A2
0969 : A6 A5 A7 65 03 85 A7 90  94
0971 : BD 20 77 03 B0 06 A9 00  5E
0979 : A2 05 D0 DF A9 20 A0 01  EE
0981 : A2 0C D0 D9 20 77 03 B0  C4
0989 : 09 20 77 03 A9 00 69 04  29
0991 : D0 BE 20 77 03 B0 08 20  CD
0999 : 34 03 18 69 06 D0 B1 A2  75
09A1 : 08 20 34 03 D0 AA A9 00  30
09A9 : 85 A7 06 FB F0 09 2A 26  4F
09B1 : A7 CA D0 F6 A2 02 60 A0  CD
09B9 : 3C 2C A0 7B 8C 64 03 48  2B
09C1 : A0 00 B1 FE A4 FE D0 02  37
09C9 : C6 FF C6 FE C0 E7 F0 08  3F
09D1 : 38 2A 85 FB 68 4C 3C 03  DF
09D9 : A4 FF C0 07 D0 F2 A9 37  48
09E1 : 85 01 CE 30 D0 58 4C 00  A1
09E9 : 7C 06 FB F0 CD 60 38 A5  91
09F1 : F7 E5 A8 85 F7 B0 02 C6  50
09F9 : F8 A4 A8 F0 18 A5 FC 38  9F
0A01 : E5 A8 85 FC B0 02 C6 FD  6D
0A09 : B1 F7 88 91 FC 98 D0 F8  D4
0A11 : C4 A9 D0 01 60 B1 F7 C6  FF
0A19 : FD C6 F8 C6 A9 10 EB BD  D6
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0A21 : B3 09 9D E8 07 E8 D0 F7  C8
0A29 : EE AF 03 EE B2 03 C6 FA  E2
0A31 : D0 ED 86 A9 CA 9A A2 02  DF
0A39 : 4C 00 01 04 3A 30 61 D8  A3
0A41 : E9 5D C1 39 CF 17 FE 7F  21
0A49 : 5B F0 DE 92 5C 8F DC 8B  F3
0A51 : 5C 87 9D 03 9D 56 E1 01  4F
0A59 : 77 C0 03 03 9D 85 06 06  7C
0A61 : 39 1F C8 0C 0C 59 88 18  BB
0A69 : 18 F3 15 30 30 67 61 60  4B
0A71 : 60 33 30 27 C0 C0 6C 46  AC
0A79 : 32 F8 A2 00 A0 00 BD 10  F1
0A81 : 08 9D 08 F9 19 E0 78 D0  B5
0A89 : F5 AE F8 BD 00 0A 99 80  83
0A91 : 08 E8 C8 C0 08 D0 F4 AD  8E
0A99 : 86 FE 08 18 69 08 C9 80  A2
0AA1 : B0 05 FE 90 EA FD 59 2A  FE
0AA9 : 88 A0 F3 46 F1 46 FF 66  65
0AB1 : E1 46 B1 01 AD FB 1F C9  0D
0AB9 : 02 D0 0E AD 44 0B F0 08  CD
0AC1 : 20 00 0B A9 00 8D 1E E0  80
0AC9 : 7F EE 3F 0B 60 38 50 1E  36
0AD1 : 89 A9 12 8D 18 D0 4C 40  1F
0AD9 : 0B E3 07 FE 3F E0 FF 03  78
0AE1 : FE 3F E0 FF 03 FE 3F E0  9E
0AE9 : FF 03 FE 3F E0 FF 03 FE  29
0AF1 : 3F E0 FF 03 FE 3F E0 FF  6E
0AF9 : 03 FE 3F E0 FF 03 FE 3F  FA
0B01 : E0 FF 03 FE 3F E0 FF 03  82
0B09 : FE BF 09 F8 FF AD C0 B5  24
0B11 : 0F DE C7 79 7D F0 D2 EB  33
0B19 : 85 FF 5F 78 FD FF C8 6C  61
0B21 : BE 20 9D E7 00 C9 B6 23  C3
0B29 : BD 00 22 99 80 20 73 1F  B7
0B31 : DB B6 23 BD B6 77 05 B6  A0
0B39 : ED 06 82 DA 66 02 AD 78  43
0B41 : 7E A0 6D E3 23 72 DB 23  63
0B49 : 2C B7 CD 04 EE 3F 23 60  7B
0B51 : 70 F8 6C 3B 18 77 DB 23  B3
0B59 : 6E 81 FF 0F F8 FF 80 FF  FB
0B61 : CF DF FF E3 81 49 9F 21  BF
0B69 : AC F6 B4 60 8B 17 0C FF  6B
0B71 : BF F0 FA FF 81 D9 80 28  A0
0B79 : 9D 08 DF 0C B4 6D 2B BD  73
0B81 : 00 2A 99 80 28 DC C7 B6  03
0B89 : 2B 75 AF ED 5D 81 6D BB  27
0B91 : 81 88 B6 1F 2B 5E 6D 1B  79
0B99 : 2B 97 DB 2B 66 B9 6D 26  22
0BA1 : EE 3F 2B 60 E0 BF 73 A9  33
0BA9 : 1A CE DB 76 2B 0B FC 7F  EE
0BB1 : C0 FF 07 FC 7F FE FE DF  7E
0BB9 : 0E 5C FA 4E E1 AC 97 05  6A
0BC1 : 9F 3C 60 F8 FF 85 D7 FF  41
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Commodore

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0BC9 : 2F CC FE 30 9D 08 FB 66  FB
0BD1 : A0 6D E3 33 BD 00 32 99  5F
0BD9 : 80 30 3E B6 AD 33 7B 6D  15
0BE1 : EF 0A 6C DB 0D 04 B5 CD  CF
0BE9 : F0 00 AD FC 40 DB C6 33  49
0BF1 : E5 B6 33 59 6E 9B 09 EE  EF
0BF9 : 3F 33 60 28 F0 D9 76 1D  E1
0C01 : EE B6 DD 33 02 FF 1F F0  A7
0C09 : FF 01 FF 9F 00 FC FF 76  51
0C11 : E0 D2 77 0E E7 BC 2A 78  F8
0C19 : E9 F1 C2 FF 6F 8B DD 5B  2D
0C21 : 92 EB 91 7B 91 EB B0 73  9F
0C29 : A0 D3 2A 3C E0 0E B8 03  2C
0C31 : 03 B3 30 06 06 E7 03 0C  9E
0C39 : 0C 39 0B 18 18 71 BE E2  76
0C41 : 30 30 2C 60 60 6C 06 E6  F0
0C49 : 84 C0 C0 CD 48 06 A2 00  56
0C51 : A0 00 BD 10 38 9D 08 3F  72
0C59 : 3F E0 78 D0 F5 AE 03 DF  E1
0C61 : BD 00 3A 99 80 38 E8 C8  DF
0C69 : C0 08 D0 F4 AD D0 1F 18  0E
0C71 : 69 08 C9 80 B0 05 C1 1F  D9
0C79 : EA B2 5F 59 05 11 F3 46  F5
0C81 : F1 46 FF 66 E1 46 B1 02  7D
0C89 : AD 74 FF C9 02 D0 0E AD  E4
0C91 : 44 3B F0 08 20 00 3B A9  F2
0C99 : 00 8D C3 03 FC 0F EE 3F  34
0CA1 : 3B 60 48 CA 23 A9 1F 8D  8F
0CA9 : 18 D0 4C 40 3B 71 FC C0  F9
0CB1 : FF 07 FC 7F C0 FF 07 FC  85
0CB9 : 7F C0 FF 07 FC 7F C0 FF  48
0CC1 : 07 FC 7F C0 FF 07 FC 7F  69
0CC9 : C0 FF 07 FC 7F C0 FF 07  F6
0CD1 : FC 7F C0 FF 07 FC 7F C0  95
0CD9 : FF 07 FC 7F C0 FF 07 FC  AD
0CE1 : 7F C0 FF 07 FC 7F C0 FF  70
0CE9 : 07 FC 7F C0 FF 07 FC 7F  91
0CF1 : C0 FF 07 FC 7F C0 FF 07  1E
0CF9 : FC 7F C0 FF 07 FC 7F C0  BD
0D01 : FF 07 FC 7F C0 FF 07 FC  D5
0D09 : 7F C0 FF 07 FC 7F C0 FF  98
0D11 : 07 FC 7F C0 FF 07 04 7F  D5
0D19 : 0B F8 F6 43 96 71 6D B1  D4
0D21 : C3 3B D0 15 03 25 96 81  0F
0D29 : 99 92 30 37 1E 10 07 2D  D7
0D31 : 2D 94 05 60 0D C0 35 17  D0
0D39 : 6F 08 82 2D 09 1A 64 86  F3
0D41 : B8 79 95 10 E3 4C 13 4C  A3
0D49 : 99 0F 01 09 B2 41 5C 62  37
0D51 : 26 07 49 97 A2 C5 80 60  5B
0D59 : 5D 83 27 FC 11 20 98 B1  B9
0D61 : C3 22 80 73 05 54 87 65  A0
0D69 : 1D DE F9 0C C3 10 0F 00  EE
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0D71 : 53 85 D9 96 E1 8D 0A 00  83
0D79 : 2C 0C 2D FA CC 89 D1 B5  22
0D81 : C1 5A C1 F0 EE 66 8B 43  D5
0D89 : 91 15 64 5F DC 10 DC F8  5E
0D91 : 63 02 05 07 3B 02 2E 81  97
0D99 : 89 9A DC 0A 0C 0F 0F D4  07
0DA1 : 63 B0 EA E0 13 01 1C 2D  37
0DA9 : 2A 25 7F 26 17 EB C2 34  4F
0DB1 : 5B 39 06 57 56 0F AE 0D  C8
0DB9 : 35 8A 13 85 37 2E 2E 23  8D
0DC1 : B6 C3 F3 DA 28 3C 2A 93  E5
0DC9 : D6 5A E4 0C 72 48 15 77  34
0DD1 : 58 3F 58 E1 07 08 18 40  AD
0DD9 : 8A E0 60 E4 08 20 19 38  DE
0DE1 : 42 EE 14 94 2F 9D A7 52  55
0DE9 : 42 83 27 89 3E 92 0E 64  61
0DF1 : 0B 05 CB BE F2 2C BC 17  FB
0DF9 : 27 0D F2 88 0D 0F 16 41  99
0E01 : 53 48 14 A2 6A F2 34 3B  57
0E09 : 7F A7 CA 0F E2 4C 14 01  D3
0E11 : 04 E6 19 13 13 F1 07 14  36
0E19 : 5C 1D 4D C8 CD 33 17 A5  8E
0E21 : 17 BA D1 01 2A A1 11 50  BE
0E29 : 01 50 59 15 8A C5 01 0C  3E
0E31 : 0C F6 55 01 12 13 2E AC  FA
0E39 : 6B 60 52 76 C5 2D 0D 01  34
0E41 : 13 0B 20 09 13 F1 5F 14  69
0E49 : 08 05 20 D9 05 58 05 04  46
0E51 : 20 13 03 12 05 CA 87 2C  1B
0E59 : 13 0F 20 04 14 4F 27 14  FD
0E61 : C0 7F 22 04 2C 17 65 13  21
0E69 : FE 7C 9E FA C6 20 17 12  9A
0E71 : 09 14 14 F7 10 20 02 19  C5
0E79 : 8D 15 03 09 06 05 12 B3  AB
0E81 : 1E 02 03 05 0E 14 15 12  FC
0E89 : 19 FB 42 30 37 2F 38 39  77
0E91 : 20 2A F3 2F E7 8C 57 01  EB
0E99 : 4B 3A BC F4 78 1E 81 15  78
0EA1 : 8D 29 2E C3 30 7B 62 31  92
0EA9 : F7 BB 5B D1 98 DA 36 BC  42
0EB1 : 13 32 BB 00 32 74 57 34  59
0EB9 : A6 B8 0C 32 EF 89 33 DD  D8
0EC1 : EF EE 04 01 D6 60 DB F0  0A
0EC9 : 33 02 D0 34 0D 90 23 38  0A
0ED1 : 30 30 2D F0 25 38 DB 28  57
0ED9 : 09 12 11 20 3D 20 24 33  00
0EE1 : 02 36 30 94 FF 84 0C 1B  27
0EE9 : 35 1D 6D 02 2E 03 08 0F  82
0EF1 : 0F 13 CF 4B 0C 0F 03 01  2E
0EF9 : 78 0F 0E 20 0F 06 20 12  46
0F01 : 0F 15 14 09 0E 05 20 28  9B
0F09 : 31 2D 35 29 20 21 21 21  15
0F11 : C2 05 FC 47 BD 39 5F 97  D0
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Commodore

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0F19 : 1A 45 7F 8D 0D DC A9 1B   FC
0F21 : 8D 11 D0 A9 21 8D 14 E8   41
0F29 : 3F 6C 8D 15 03 A9 33 8D   0A
0F31 : 12 D0 58 60 78 A9 01 8D   C1
0F39 : 19 00 01 FF 59 63 BC 00   36
0F41 : 6D 5B BD 00 6E 6A 03 F5   FD
0F49 : E8 E0 C7 D0 EC A9 00 A0   0B
0F51 : 0A 88 D0 FD 94 BF B7 8D   D4
0F59 : 21 D0 4C 31 EA 16 AF 5F   F8
0F61 : 10 CB 06 BE C1 B3 07 84   8F
0F69 : 79 40 8C 07 84 78 40 1D   4E
0F71 : 50 00 08 08 1C 20 FF 6A   5C
0F79 : 9E 92 01 99 B0 21 0B 0C   2C
0F81 : 0F ED 11 43 36 01 20 90   41
0F89 : 0F 05 0C 2A 0B 80 4E 89   64
0F91 : 0E 0F 06 06 06 E7 6F 64   0F
0F99 : 3C 20 C8 03 82 3C 0D 0D   D0
0FA1 : 05 05 05 07 1E 05 57 01   B5
0FA9 : 0A 0A 02 02 02 F8 3E B8   CC
0FB1 : F1 0C 56 F8 EA A9 15 8D   C8
0FB9 : 18 D0 A2 00 78 FC 04 70   42
0FC1 : 12 04 48 71 20 05 81 04   4E
0FC9 : 72 12 06 BD 00 73 F8 07   0B
0FD1 : A9 00 40 07 D8 18 D9 60   E2
0FD9 : DA 9D 00 DB E8 D0 D7 20   B2
0FE1 : 00 6C 60 C0 7E 97 7D FB   DA
0FE9 : 89 52 79 C0 26 14 52 6F   3D
0FF1 : 72 37 B4 54 1B 89 61 52   DF
0FF9 : 69 58 08 20 CF 44 03 D0   61
1001 : F0 24 54 27 9E 90 39 90   72
1009 : 08 65 75 D7 D6 5D 78 D8   08
1011 : 56 DF 20 83 EF 0E D8 9A   D7
1019 : 5F 4A 64 DF 20 20 E9 78   4E
1021 : 1F 32 20 20 2B FD 97 7A   5B
1029 : A3 E6 4C 87 A0 8C 8F 87   FF
1031 : 8F AD FE 30 8F 92 E6 5B   3C
1039 : 58 EB 71 69 9E 94 85 53   5C
1041 : 76 1A 0B 58 E1 B1 95 FA   8A
1049 : 3C A7 85 84 89 94 9E 83   09
1051 : 92 85 85 8E 25 9E 83 B2   94
1059 : 4A 7D 9E 83 88 81 8E 87   58
1061 : 53 DE 84 AA B3 CE 52 9F   D4
1069 : E7 D4 8A 8D 81 93 8B 76   DE
1071 : 0D B4 AD D4 E7 39 93 81   78
1079 : 96 6D 92 8F 95 83 6E 8E   A9
1081 : 85 10 F7 B5 38 ED 79 4D   36
1089 : 89 F6 94 92 95 83 94 89   E0
1091 : 8F 8E 93 A0 AA B6 AA A0   AC
1099 : 3F B0 E5 01 2D 1E 70 E1   13
10A1 : 01 71 40 A0 A0 A0 1B C8   8C
10A9 : F0 80 38 A0 80 80 80 3D   84
10B1 : A7 E1 8D 89 78 5E 14 1E   E4
10B9 : 04 90 67 DD 85 D0 49 2D   F9
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10C1 : 5E 82 9D 71 57 11 33 3C 39
10C9 : 02 0A 6F 01 D6 0D D3 F0 EB
10D1 : E1 69 C3 39 82 78 E1 A1 36
10D9 : E2 78 0F 72 EE BB E5 F1 52
10E1 : 0A 60 8B 07 62 E1 5D C8 1B
10E9 : 78 6A 72 C9 8F D7 25 E2 7E
10F1 : 4D A8 78 2C 1C 1E A7 9C C1
10F9 : 07 7C 78 66 16 1E 88 86 AB
1101 : 62 E1 09 1B 5E 84 8F A7 91
1109 : 81 E1 5D 68 D7 88 07 CC 57
1111 : 15 5B 51 37 6C D9 87 07 D1
1119 : 7C 78 C0 06 2A 20 00 A0 A7
1121 : 2A 86 C8 BF 6F 4E C3 6B 08
1129 : 8B 45 80 D9 66 21 1E 9E D7
1131 : 57 E1 5D C8 78 53 1A 0B 8A
1139 : 26 00 E7 20 52 8B C7 00 FE
1141 : B3 15 4D 8B 9B 82 9B D6 2D
1149 : E1 6D C0 6D 29 6E 3B 71 94
1151 : E3 B1 59 15 AC 1E 5B F4 19
1159 : 20 10 98 A7 4D 21 C6 35 00
1161 : D3 34 DC 34 61 5C 2C 7C AF
1169 : FA 26 A5 3C 5E 14 4F 82 30
1171 : C7 5B D6 1E 84 BC 7A 82 7C
1179 : 00 F2 E6 35 63 53 7A 3C 86
1181 : 12 0C 2F 28 07 E9 74 F3 E4
1189 : EA 2C BC 14 39 3C BA 0E B7
1191 : E2 32 BC 20 4B 91 A3 C2 15
1199 : 24 78 BC 01 AD 81 16 0B 9E
11A1 : 56 40 3E AE 11 6F A8 02 B0
11A9 : 32 32 13 4D 04 0D 09 B2 95
11B1 : 44 96 7D 78 BC 33 20 CB 2C
11B9 : 3B 20 0F 33 37 02 20 30 93
11C1 : EB CC 20 B2 CE 20 0E CC 30
11C9 : 01 01 02 A7 1E 50 E5 01 BE
11D1 : 2B 1E 50 E1 01 1B 20 20 05
11D9 : 50 BE E0 E2 E2 75 20 F0 59
11E1 : 6E EA 20 E4 FF C9 31 F0 5E
11E9 : 17 C9 32 F0 16 C9 33 F0 EE
11F1 : 15 C9 34 F0 14 C9 35 F0 5C
11F9 : 13 C9 36 F0 12 D0 E3 00 D4
1201 : 4C 90 90 04 FE 87 40 7C 60
1209 : 4C 50 99 4C 40 F8 01 78 2E
1211 : 9A 4C 06 9B BC 73 67 9F 0B
1219 : A9 0B 8D 20 D0 20 00 98 EE
1221 : 4C 00 7C C0 1F F8 FF 80 5F
1229 : FF 0F A8 FD 80 6D 0F 68 1A
1231 : F3 80 1B 8F 59 C6 78 B4 34
1239 : 32 CB 0B 83 FF DF 47 1C D8
1241 : F4 B2 62 94 27 13 A3 BC CD
1249 : 85 18 E5 91 C3 28 AF 17 F0
1251 : 46 79 96 30 CA 7B 83 51 39
1259 : 1E 0E 8C F2 22 60 94 A7 C6
1261 : 0E E5 0D 43 79 9C 50 5E 88
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1269 : 1D 94 E7 04 E5 9D 40 79  8A
1271 : 00 50 1E A8 0C F4 82 FF  A8
1279 : 2F C8 FF 83 82 34 BD 40  BE
1281 : D8 F7 8C 7A 40 98 07 0A  C0
1289 : E5 61 CA 48 2F C4 FF 0B  0A
1291 : F1 FF 3C 09 3E 6A 26 8F  A1
1299 : 00 2C 92 27 64 8C 44 1E  31
12A1 : 10 87 06 E4 39 75 44 3C  5C
12A9 : 1E 53 E1 81 E0 78 4A 86  21
12B1 : C7 D5 78 48 87 F7 29 07  75
12B9 : BD EC FF CB FE 3F 20 FC  CA
12C1 : 03 E2 BD 6F CC 03 A2 3C  7A
12C9 : 20 C4 43 EA 09 0A 0B 0C  9F
12D1 : 0D 0E 0F 10 01 02 03 04  DF
12D9 : 05 06 07 08 10 F0 1F 54  52
12E1 : 06 7A C0 FF 07 FC 7F C0  2C
12E9 : F0 07 84 7B 40 9C 97 00  35
12F1 : E5 61 23 1E 84 8D F1 C2  15
12F9 : E0 FF 77 0F A7 3D 20 C5  09
1301 : 03 2A 3C 60 03 0A 0A 0A  F1
1309 : 68 20 C5 03 2A 3C 60 03  5F
1311 : 0B 0B 0B 68 20 C5 03 2A  02
1319 : 3C 60 03 0C 0C 0C 68 20  CB
1321 : C5 03 2A 3C 60 03 0D 0D  E6
1329 : 0D 68 20 C5 03 2A 3C 60  5E
1331 : 03 0E 0E 0E 68 20 C5 03  25
1339 : 2A 3C 60 03 0F 0F 0F 68  70
1341 : 20 C5 03 2A 3C 60 03 10  3D
1349 : 10 10 68 18 18 E3 81 C0  A7
1351 : 10 0F 48 F1 80 0A 0F D8  7F
1359 : 00 02 02 02 1A 48 F1 80  C8
1361 : 0A 0F D8 00 03 03 03 1A  B2
1369 : 48 F1 80 0A 0F D8 00 04  CB
1371 : 04 04 1A 48 F1 80 0A 0F  70
1379 : D8 00 05 05 05 1A 48 F1  5A
1381 : 80 0A 0F D8 00 06 06 06  3A
1389 : 1A 48 F1 80 0A 0F D8 00  D0
1391 : 07 07 07 1A 48 F1 80 0A  4B
1399 : 0F D8 00 08 08 08 1A 48  CF
13A1 : F1 80 0A 0F D8 00 09 09  FB
13A9 : 09 1A C8 F0 80 38 A0 01  5E
13B1 : 01 01 BD A1 ED 75 69 F7  F6
13B9 : 76 B4 7B 77 5A F1 38 00  6D
13C1 : 99 67 2E 04 4B 74 20 05  FD
13C9 : 81 04 75 12 06 48 76 20  A9
13D1 : 07 83 10 77 16 C7 70 2C  47
13D9 : C8 34 74 D0 45 03 9A 40  4A
13E1 : 42 B6 EE 12 EE F8 AD 60  AA
13E9 : C9 78 D0 E4 A2 74 42 EF  76
13F1 : 0C 44 AB BE 4B 98 38 96  69
13F9 : C2 63 C0 8C 12 78 48 8D  50
1401 : 20 79 81 04 8E 12 7A C8  B4
1409 : 8F 21 7B 87 0D A4 47 4F  AA
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1411 : B5 C2 20 30 99 37 78 DD  26
1419 : 08 78 B4 85 79 5B A2 B8  AA
1421 : 7A 25 8A 7B DB A1 18 57  1A
1429 : 78 A9 E0 8D 14 6D 7E 98  37
1431 : 8D 15 03 C0 A1 1A D0 A9  A3
1439 : 7F 8D 0D DC FA A4 75 58  B9
1441 : 4C F0 98 A9 01 8D 19 D0  E3
1449 : 20 60 EF 07 31 EA 1D EB  2D
1451 : C0 1D C4 0F A9 13 CF 53  CC
1459 : 31 45 83 00 F0 F9 1B AF  B8
1461 : 0B AA 96 8F 8A 20 D2 FF  4E
1469 : 18 90 E7 20 22 99 60 A4  81
1471 : D3 B1 D1 49 80 91 D1 4E  33
1479 : C0 FF 7C 3A 00 37 D8 C0  3E
1481 : D9 00 03 DA DC DB 10 05  6D
1489 : 56 40 FD F0 04 60 28 9A  B6
1491 : 9C 0B 60 E8 E0 10 D0 F5  A6
1499 : 79 03 18 1B B7 00 CE 19  E6
14A1 : 4D 80 18 35 01 96 B6 36  E7
14A9 : F0 16 BA 00 15 D0 DF B6  18
14B1 : 15 98 66 B0 80 01 C8 06  01
14B9 : E0 18 F8 99 4C 10 9A C0  48
14C1 : 4F 80 A0 81 BB A3 82 A0  CD
14C9 : 83 79 37 17 84 A0 85 BE  9A
14D1 : A3 86 A0 87 79 37 17 88  8F
14D9 : A0 89 BE A3 8A A0 8B 79  31
14E1 : 37 17 8C A0 8D BE A3 8E  55
14E9 : A0 8F 79 37 17 90 A0 91  32
14F1 : BE A3 92 A0 93 79 3B 15  56
14F9 : A2 94 A0 95 8E 74 BE 47  D6
1501 : 7A 98 A2 96 A0 97 8E 80  45
1509 : 98 8C 86 D8 7F 3A 21 99  25
1511 : 0D 01 13 0B 23 20 28 31  FB
1519 : 2D 36 29 20 3F 3F 3F 1E  D7
1521 : E0 BF 06 20 3D 98 9B 80  6E
1529 : 2A A9 67 C8 77 74 D0 B3  E0
1531 : 78 3E CF 8C 47 A2 F0 A0  DC
1539 : 7B 8E 6B BD 94 E6 A5 E1  69
1541 : 4D 41 53 4B 5D 0C C3 6A  87
1549 : 9B A6 6B 5D 23 2C F1 69  EC
1551 : 87 31 F0 17 C9 32 F0 1A  B6
1559 : C9 33 F0 1D C9 34 F0 20  DE
1561 : C9 35 F0 23 27 E0 3F 91  FF
1569 : F0 27 D0 E3 5C 70 0B 66  E0
1571 : 87 AC 23 C6 21 28 A0 2B  1C
1579 : F7 90 30 A0 33 9B A2 38  E4
1581 : A0 3B 4C D2 9A 00 28 FE  74
1589 : 1D 8E 63 9F 8C 6D CC 4B  B8
1591 : 40 C8 0A A0 C2 25 0C E5  1D
1599 : A9 F2 A0 9A 20 1E AB 20  19
15A1 : FA 9D 66 50 9F 79 83 4E  7E
15A9 : 41 4D 45 20 4F 46 20 52  33
15B1 : 4F 55 54 49 4E 45 3A 10  01
```

Commodore

```
15B9 : F0 5F C0 B5 00 9F A2 00  C7
15C1 : AC 13 66 48 04 20 67 81  7B
15C9 : 04 05 12 68 48 06 BD 00  8D
15D1 : 69 9D 00 07 E8 D0 E5 20  D7
15D9 : E4 FF C9 20 D0 F9 4C 00  41
15E1 : 7C 40 01 FF 81 FF 0F F8  04
15E9 : FF 80 E9 0F 48 F7 8C 1D  35
15F1 : 3D 4C 2E 20 18 E5 20 15  3F
15F9 : FD 20 A3 FD 9F 1F 8D 20  18
1601 : D0 8D 21 D0 A9 07 8D 86  10
1609 : 02 20 44 E5 A2 28 03 02  65
1611 : FE FB 8E 18 03 8C 19 03  B2
1619 : A9 00 85 9D 60 40 F0 27  F1
1621 : 71 F1 BA 68 8E 61 9F 8C  D2
1629 : 6B F6 46 A2 08 A0 01 20  BF
1631 : BA FF A9 03 A2 80 A0 9F  A5
1639 : 20 BD FF 72 08 F8 3F A0  0C
1641 : 38 86 FB 84 FC A9 FB A2  9E
1649 : 68 A0 3B 20 D8 FF A0 07  F2
1651 : F8 7F E1 E1 52 54 35 4B  F1
1659 : 1D CB F1 00 EA EA EA A2  CF
1661 : 00 20 CF FF C9 0D F0 06  3A
1669 : 9D 80 9F E8 D0 F3 8E 58  E3
1671 : 9F 60 2C E0 3F 70 E4 01  75
1679 : 25 1E 70 07 64 00 00 00  F1
1681 : 00 00 18 05 9D F0 04 BD  15
```

Teyp Directory

Bu kısa program sayesinde kasetteki programların isimlerini, counter yerleşimlerini ve küçük bir notu teybe kaydedebilirsiniz. Dolayısıyla bu programı başına çektiğiniz kasedin kağıdını kaybetseniz bile içindeki oyunların fihristini alabilirsiniz.

```
00000 PRINT  CHR$(147);CHR$(30):POKE  53281,0:POKE
      53280,0:REM  BY BERKI YENIGUN                    <108>
00005 PRINT  CHR$(145);"<2SPACE>YENI ISIM MI GIRECE
      KSINIZ(F1), ESKI ISIMLERE MI BAKACAK";           <000>
00006 PRINT  "SINIZ(F3) ?":CLR                         <040>
00008 PRINT  "(F5) ISIM VEREREK PROGRAM YUKLEME"       <012>
00015 GET  W$:IF  W$=""  THEN  GO  TO  15              <112>
00020 IF  ASC(W$)=133  THEN  GOTO  35                  <011>
00025 IF  ASC(W$)=134  THEN  GO  TO  80                <111>
00027 IF  ASC(W$)=135  THEN  INPUT  "PROGRAM ISMI "
      ;Q$:LOAD Q$                                      <011>
00033 GO                TO  15                         <046>
00035 OPEN  64,1,1,"<RVSON>$"                          <163>
00040 INPUT  "PROGRAM ISMI ";IS$                       <227>
00045 INPUT  "COUNTER YERLESIMI ";CO$                  <185>
00050 INPUT  "NOT ";NO$                                <129>
00055 IF LEN(NO$)>9 OR LEN(IS$)>16 THEN PRINT "UZUN
      VERI,BASTAN YAP":GOSUB  105:RUN                  <180>
00065 PRINT# 64,IS$:PRINT# 64,CO$:PRINT# 64,NO$:PRI
      NT  IS$,CO$,NO$                                  <140>
00070 INPUT  "DAHA VAR MI (E/H)";C$:IF  C$=CHR$(69)
      THEN  GO  TO  40                                 <206>
00072 LET  YS$=CHR$(190)                               <253>
00073 PRINT# 64,CHR$(190)                              <213>
00075 CLOSE  64:PRINT  "TAMAM!":WAIT  198,1:RUN  5     <186>
00080 PRINT  CHR$(147):PRINT :OPEN  65,1,0,"<RVSON>
      $":LET  A$=CHR$(190)                             <213>
00085 INPUT# 65,IS$:GOSUB  97:PRINT  IS$,              <145>
00087 INPUT# 65,IS$:GOSUB  97:PRINT  IS$,              <147>
00090 INPUT# 65,IS$:GOSUB  97:PRINT  IS$               <230>
00093 GO  TO  85                                       <218>
00097 IF  IS$=A$  THEN  GO  TO  100                    <202>
00098 RETURN                                           <156>
00100 CLOSE  65:END                                    <081>
00105 FOR  U=1  TO  1000:NEXT  U:RETURN                <243>
```

Joystick Kontrol

Bu program joystick'nizin 8 yönünü ve ateş tuşunu kontrol eder ve bunu hem şematik hem yazıyla size bildirir. Şema sayesinde joystick'inizin aynı yönünü tekrar tekrar kontrol etmek zorunda kalmazsınız.

```
00000 REM  dQ STICK CONTROL, BY B.YENIGUN                          <133>
00004 POKE  53280,0:POKE  53281,0:POKE  646,5:PRINT
        CHR$(147);CHR$(32);CHR$(8)                                 <101>
00006 PRINT  "JOY STICK'INIZI 1. PORT'A YERLESTIRIP
       ATESE BASINIZ.":WAIT  197,60                                <086>
00010 PRINT  CHR$(147):PRINT :PRINT :PRINT                         <024>
00012 PRINT  "<4SPACE>▒▒▒<6SPACE>▒▒▒<6SPACE>▒▒▒                    <241>
00014 PRINT  "<4SPACE>▒ ▒<6SPACE>▒ ▒<6SPACE>▒ ▒                    <176>
00016 PRINT  "<4SPACE>▒▒▒<6SPACE>▒▒▒<6SPACE>▒▒▒                    <219>
00018 PRINT  "<7SPACE>▒<6SPACE>▒<6SPACE>▒                          <112>
00020 PRINT  "<8SPACE>▒<5SPACE>▒<5SPACE>▒                          <114>
00022 PRINT  "<9SPACE>▒<4SPACE>▒<4SPACE>▒                          <116>
00024 PRINT  "<10SPACE>▒<3SPACE>▒<3SPACE>▒                         <118>
00026 PRINT  "<11SPACE>▒▒▒▒▒▒▒                                     <180>
00028 PRINT  "<4SPACE>▒▒▒<4SPACE>▒<5SPACE>▒<4SPACE>
       ▒▒▒                                                         <192>
00030 PRINT  "<4SPACE>▒ ▒*****▒<5SPACE>▒*****▒ ▒                   <234>
00032 PRINT  "<4SPACE>▒▒▒<4SPACE>▒<5SPACE>▒<4SPACE>
       ▒▒▒                                                         <009>
00034 PRINT  "<11SPACE>▒▒▒▒▒▒▒                                     <020>
00036 PRINT  "<10SPACE>▒<3SPACE>▒<3SPACE>▒                         <082>
00038 PRINT  "<9SPACE>▒<4SPACE>▒<4SPACE>▒                          <084>
00040 PRINT  "<8SPACE>▒<5SPACE>▒<5SPACE>▒                          <086>
```

```
00042 PRINT  "<7SPACE><6SPACE><6SPACE>                    <088>
00044 PRINT  "<4SPACE><6SPACE><6SPACE><6SPACE>            <017>
00046 PRINT  "<4SPACE><6SPACE><6SPACE><6SPACE>            <208>
00048 PRINT  "<4SPACE><6SPACE><6SPACE><6SPACE><2DO
      WN><CTRL-2><DOWN>                                   <244>
00050 LET  J=PEEK(56321)                                  <076>
00052 IF  J=247  THEN  A$="SAG":LET  A=1487                <013>
00054 IF  J=246  THEN  A$="UST SAG":A=1167                 <242>
00056 IF  J=251  THEN  A$="SOL":A=1469                     <211>
00058 IF  J=249  THEN  A$="ALT SOL":A=1789                 <118>
00060 IF  J=245  THEN  A$="ALT SAG":A=1807                 <047>
00061 GET  G$:IF  G$="Q"  THEN  STOP                       <224>
00062 IF  J=255  THEN  LET  A$="BOS":A=1478                <084>
00064 IF  J=253  THEN  A$="ALT":LET  A=1798                <160>
00066 IF  J=250  THEN  A$="UST SOL":A=1149                 <111>
00068 IF  J=239  THEN  POKE  A+54272,2:LET  A$="ATE
      $"                                                  <167>
00070 IF  J= 254  THEN  A$="UST":LET  A=1158               <231>
00072 PRINT  CHR$(19);TAB(230);A$                          <019>
00074 PRINT  CHR$(19);TAB(230);"<7SPACE>":POKE  A,8
      1:GO  TO  50                                        <251>
```

Screenwalker 64

Bu kısa oyunda amacınız W, E, N, S tuşlarıyla yönettiğiniz topia rengarenk (ve bazen görünmez) engellere çarpmadan ekranın herhangi bir yerinde beliren kırmızı kalbi alıp ekranın ucuna ulaşmak. Bunu 25 saniye için de yapmak zorundasınız, üstelik kalbi almanız her zaman mümkün olmayabilir, (kalp sizin ulaşamayacağınız yerlerde ortaya çıkabilir). Bence kısa ama ilginç bir oyun. Bu programı kendi oyunlarınız içinde örneğin bir bonus ekranı olarak kullanabilirsiniz.

```
00000 REM  SCREENWALKER 64                                          <235>
00002 REM  BY BERKI YENIGUN, (C) MCMXCII                            <251>
00006 LET  M=RND(-TI):POKE  650,255::CLR                            <048>
00010 PRINT  "<CLR><CTRL-1>":PRINT :POKE  53280,0:P
      OKE  53281,1:PRINT  CHR$(142);CHR$(8)                         <062>
00020 FOR  Q=1  TO  100:LET  J=1104+RND(1)*943:POKE
       J,224:POKE  J+54272,RND(1)*16:NEXT  Q                        <235>
00022 LET  W=943*RND(1)+1104:POKE  W,83:POKE  W+542
      72,2                                                          <075>
00025 LET  TI$="000000"                                             <020>
00035 POKE  1024+Y*40+X,81:POKE  1024+X+40*Y,32:IF
       A=14  THEN  LET  X=X+1                                       <005>
00037 IF  A=9  THEN  LET  X=X-1                                     <106>
00040 IF  A=39  THEN  LET  Y=Y-1                                    <192>
00050 IF  A=13  THEN  LET  Y=Y+1                                    <248>
00055 PRINT  "<HOME>",MID$(TI$,2,2)":"RIGHT$(TI$,2)
      LET  A=PEEK(197)                                              <182>
00060 IF  A=9  THEN  LET  X=X-1                                     <129>
00063 IF  X<1  OR  X>40  THEN  LET  X=2                             <086>
00065 IF  Y=<1  OR  Y=>23  THEN  LET  Y=2                           <158>
00070 IF  X=40  THEN  GOSUB  170                                    <018>
00075 IF  TI$>"000025"  THEN  PRINT  "KAYBETTINIZ":
      FOR  C=1  TO  666:NEXT  C:GO  TO                              <173>
00080 IF  PEEK(1024+X+40*Y)=224  THEN  GOSUB  120:L
      ET  X=2                                                       <254>
00085 IF  PEEK(1024+40*Y+X)=83  THEN  P=1                           <218>
00100 GO  TO  35                                                    <145>
00110 FOR  B=1  TO  999:NEXT  B:RETURN                              <081>
00120 FOR  B=7  TO  23:POKE  53280,B:POKE  53281,B+
      1:NEXT  B:POKE  53281,1:RETURN                                <040>
00170 IF  P  THEN  PRINT  "<CLR>":PRINT :PRINT :PRI
      NT :PRINT ,"<RVSON>KAZANDINIZ":GOSUB  110:RUN
       0                                                            <200>
00180 RETURN                                                        <238>
```

Sinüs Intro

Bu program data satırlarındaki yazıları ekrana bir sinüs fonksiyonuyla basar. A değeriyle oynarsanız grafiğin görünümü değişecekir. Ayrıca F1'e basmanız intro'yu pause edecek ve shifte basmanızı bekleyecektir. F3 border F5 ekran renklerini değiştirir. Bu tuşları basılı tutarsanız renkler devamlı değişecektir. F5'de quit eder. Bu programdaki dataları değiştirerek bir açılış ekranı olarak kullanabilirsiniz, ancak programın datalarda shift-shace'i gördüğünde restore yaptığını unutmayın.

```
00000 POKE  650,255:REM  SINUS INTRO, FOR CBM 64 &
      128, BY BERKI YENIGUN                                    <035>
00040 PRINT  "<CLR><C=8>":POKE  53272,23:PRINT  CHR
      $(8):POKE  53280,0:POKE  53281,0                         <002>
00045 PRINT  "■A$LAMAK ICIN SHIFTE BASIN.":WAIT  65
      3,1:PRINT  CHR$(147):CLR                                 <135>
00047 DEF  FN W(A)=ABS(INT(SIN((A/360)* *2)*39))               <211>
00060 IF  A$=CHR$(160)  THEN  RESTORE                          <194>
00081 READ  A$:PRINT  TAB(FN W(A));A$                          <127>
00100 GET  X$:IF  X$=CHR$(133)  THEN  POKE  198,0:W
      AIT  653,1:POKE  198,0                                   <044>
00110 IF  X$=CHR$(134)  THEN  POKE  53280,PEEK (532
      80)+1                                                    <082>
00115 IF  X$=CHR$(136)  THEN  POKE  53281,PEEK(5328
      1)+1                                                     <103>
00120 IF  PEEK (53280)=255  OR  PEEK (53281)=255  T
      HEN  POKE  53280,0:POKE  53281,0                         <202>
00133 IF  X$=CHR$(135)  THEN  SYS  (64768)                     <005>
00170 LET  A=A+9:GO                TO  60                      <134>
00180 DATA  "<RVSON>■",Y," ","<RVSON>■",E,R,K,I,  ,
      "<C=3>","■","■","■","■","■","■"                          <208>
00190 DATA  "<CTRL-8>■",O,R," "                                <243>
00200 DATA  "∓∓∓∓∓∓<DOWN><5LEFT>∓<DOWN><LEFT>∓<C=7><
      DOWN><LEFT>∓<DOWN><LEFT>∓<DOWN><LEFT>∓∓∓∓∓∓"             <126>
00202 DATA  "∓<DOWN><LEFT>∓<DOWN><LEFT>∓<DOWN><LEFT
      >∓<DOWN><LEFT>∓∓∓∓∓∓<LEFT><UP>∓<5LEFT><UP>∓∓∓∓∓
      ∓                                                        <192>
00203 DATA  "<3DOWN>∓<3SPACE>∓<DOWN><LEFT>∓<LEFT><C
      TRL-8><4LEFT>∓<DOWN><LEFT>∓∓∓∓∓∓<DOWN><LEFT>∓<
      DOWN><LEFT>∓<DOWN><LEFT>∓                                <250>
00205 DATA  *,*,*,*,*,*,*,*,*,*,*,*,*,*,*,*,*,*,*,*,*
      ,*,*,*,*,*,*,*,*,*,*,*,*,*,*                             <115>
00208 DATA  *,*,"<C=4>*",*,*,*,*,*,*,*,*,*,*,*,*,*,*,
      *," ","  ","  ","  ","  ","<SHIFT-SPACE>"                <009>
```

COMMODORE 64 İLE PROGRAM YAZIYOR MUSUNUZ?

Eğer yazıyorsanız ve bu programları değerlendirme, bildiklerinizi diğer Commodore'cularla paylaşmak ve biraz da ek gelir sağlamak istiyorsanız,

YAYINLANAN HER PROGRAMINIZA 30.000 TL.

ödüyoruz !!!

Yapmanız gereken, programlarınızı bir diskete ya da kasete (turbosuz) kaydederek programınızın tam açıklaması ve adresinizle

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PROGRAM DÖKÜM EKİ
SAKIZ SOK. BERKEL APT.
NO: 6/4 - 81300 KADIKÖY
İSTANBUL

adresine poastalamak.

Eğer programınız sonraki sayılardan birinde yayınlanırsa, programınızın telif ücreti olan 30.000 TL.'yi size ileteceğiz.

⇨Programlar normal Basic dili ile, Simons' Basic ile ya da Makina Dili ile yazılmış olabilir. Eğer programınız Simons' Basic ile yazılmış ise bunu lütfen açıklamalarınızda belirtiniz. Makina Dili ile yazılan programlarınızın başlangıç ve bitiş adreslerini ve de çalışma adreslerini açıklamalarınızda belirtiniz.

⇨Programlarınızın ihtiyacı olan diğer birimleri de belirtmeyi unutmayınız. Programınızın bir dataset'e (teyp), disk sürücüsüne ya da joystick'e (veya her hangi başka bir birime) ihtiyacı varsa açıklamanızda belirtiniz.

⇨Programınızı anlatırken, kolayca anlaşılabilecek şekilde yazınız. Unutmayın ki bu programları yazacak olan arkadaşlarınızın arasında çok yeni Commodore'cular da bulunacaktır.

Şimdiden hepinize iyi çalışmalar diliyoruz ve programlarınızı bekliyoruz.